

ABSTRACT

Polarization beam splitters (P1, P2, P3, P4) are coupled in pairs along optical axes such that their planes of polarization are perpendicular. Said complementarity P1/P2, P1/P3, P4/P2, P4/P3 enables reciprocal coupling of a polarizing transmission to a polarizing reflexion for both partial beams. During cross-polarization, two complementarily linear polarized partial beams occur, which have the same high polarization quality and the same intensity, both being symmetrically folded. During cross-superpositioning the reverse is the case. Each of the two partial beams which are to be superposed are combined by transmission and reflexion by mutually complementary polarizers into a common axis. Coupling of cross-polarizers results in efficient arrangements of systems which operate with complementarily polarized radiation, e.g. 2-channel image display systems with polarization-rotating reflective spatial light modulators RLM1 and RLM2.